PTO/SB/08A (10-01)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO
INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

Complete if Known

Application Number 09/770,113

Filing Date Jan. 24, 2001

First Named Inventor Wang, Ye

Group Art Unit 2133 2655

Examiner Name TBD

(use as many sheets as necessary)

Sheet 1 of 2 Attorney Docket Number 004770.00012

			U.S. PATENT	OCUMENTS		
Examiner	Cite	Document Number	Publication Date	Name of Patentee or Applicant of	Pages, Columns, Lines, Where Relevant	
Initials	No.1	Number - Kind Code <sup>2</sup> (if known)	MM-DD-YYYY	Cited Document	Passages or Relevant Figures Appear	
	A	US-6,125,348	09-26-2000	Levine		
LOGY.	В	US- 5,928,330	07-27-1999	Goetz et al.		
0.5	C	US- 5,841,979	11-24-1998	Schulhof et al.		
45	PD	US- 5,636,276	06-03-1997	Brugger		
		US-				
		US-				
		US-				
		US-				
		US-				
		US-			·	
		US-				
		US-			חייירוי	
		US-			RECEI	V Cリ。
		US-			•	
		US-			0CT 1 8	200 <b>2</b>
		US-				
		US-			Technology Co	Inter 2100
		US-			recillology o	المراج المالا
		US-				
		US-				

	FOREIGN PATENT DOCUMENTS								
Examiner	Cite	Foreign Patent Document	Publication	Name of Patentee or	Pages, Columns, Lines, Where Relevant				
Initials*	No.1	Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> ( <i>if known</i> )	Date MM-DD-YYYY	Applicant of Cited Document	Passages or Relevant Figures Appear	T <sup>6</sup>			
00	E	EP 0 703 712 A2	03-27-1996	C-Cube Microsystems					
1	<u> </u>								
	ļ								

	<u> </u>	<u>'</u>		l	$\sim$	<i>1</i>	<u> </u>					
Examiner Signature		$\sqrt{\Omega}$	kur	$\Omega$			V X	Date Considered	12	111	103	
		70							_	7		

EXAMINER: Initial it reference considered, whether or not chation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

<sup>&</sup>lt;sup>1</sup> Applicant's unique citation designation number (optional) . <sup>2</sup> See Kinds Codes of USPTO Patent Documents at <a href="www.uspto.qov">www.uspto.qov</a> or MPEP 901.04.
<sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08B(10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Attorney Docket Number

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

**Application Number** 09/770,113 Filing Date Jan. 24, 2001 First Named Inventor Wang, Ye Group Art Unit 2133 2655 **TBD Examiner Name** 

Complete if Known

004770.00012

(use as many sheets as necessary)

of Sheet

Substitute for form 1449A/PTO

Examiner,

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T 2
X/	F	BOSSE, Modified Discrete Cosine Tranform (MDCT), March 7, 1998, available at http://ccrma-www.standford.edu/~bosse/proj/node27.html	
M	G	FRAUNHOFER, MPEG Audio Layer-3, available at http://www.iis.fhg.de/amm/techinf/layer3/index.html	
T	́ н	WCDMAN - the wideband 'radio pipe' for 3G services, September 17, 1999, available at http://www.ericsson.com/wireless/productsys/gsm/subpages/umts_and_3g/wcdman.shtml	
	-	GSM Frequently Asked Questions, October 23, 2000, available at http://www.gsmworld.com/technology/faw.html	
T	J	PERKINS, HODSON, Options for Repair of Streaming Media, Network Working Group RFC 2354, The Internet Society, June 1998.	
T		RECE	IVE
		OCT 1	3 2002
		Technology (	enter 2

Signature<sup>l</sup> EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known **Application Number** 09/770.113 Filing Date Jan. 24, 2001 Wang, Ye First Named Inventor <del>2133</del> 2655 Group Art Unit **Examiner Name TBD** 004770.00012

(use as many sheets as necessary)

Sheet of Attorney Docket Number

			U.S. PATENT		
Examiner	Cite	Document Number	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant
Initials *	No.1	Number - Kind Code <sup>2</sup> (if known)	MM-DD-YYYY	Oned Doddment	Passages or Relevant Figures Appear
		US-		·	
		US-			
		US-			
-		US-			
		US-	- <del></del>		DECHIVE
		US-			11202
		US-		-	OCT 1 8 2002
		US-			001 1 0 2002
		US-			Contor S
		US-			Technology Center 2
		US-			

			FOREIGN PA	TENT DOCU	MENTS		
	Examiner	Cite	Foreign Patent Document	Publication	Name of Patentee or	Pages, Columns, Lines, Where Relevant	
	Initials*	No.1	Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)	Date MM-DD-YYYY	Applicant of Cited Document	Passages or Relevant Figures Appear	T€
٦	1	А	WO 93/26099	06-13-1993	Institut Fur Rundfunktechnik	Abstract	
	$\perp$			_			
	( )					,	
					,		
					,		

Examiner **Date** Signature Considered

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

<sup>&</sup>lt;sup>1</sup> Applicant's unique citation designation number (optional) . <sup>2</sup> See Kinds Codes of USPTO Patent Documents at <u>www.uspto.gov</u> or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

#6

Sheet 1 of PTO-1449 (Modified) ATTY. DOCKET NO. SERIAL NUMBER 004770.00012 09/770,113 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE **APPLICANT** Ye Wang INFORMATION DISCLOSURE STATEMENT BY APPLICANT FILING DATE **GROUP ART UNIT** 2133 2655 January 24, 2001 **U.S. PATENT DOCUMENTS** DOCUMENT **FILING EXAMINER** SUB INITIAL NUMBER DATE NAME CLASS **CLASS** DATE FOREIGN PATENT DOCUMENTS TRANSLATION YES/NO EXAMINER DOCUMENT SUB NUMBER INNIAL DATE COUNTRY **CLASS CLASS** 197 36 669 10/22/98 DE 1 207 519 5/22/02 **EPO** OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) Search Report Y. Wang et al., "On The Relationship Between MDCT, SDFT And DFT", WCC 2000 - ISCP 2000, August 21-25, 2000, Y. Wang et al., "A Compressed Domain Beat Detector Using MP3 Audio Bitstreams", Proceedings Of The ACM International Multimedia Conference And Exhibition 2001, ACM Multimedia 2001 Workshops, September 30, 2001, pages Y. Wang, "A Beat-Pattern based Error Concealment Scheme for Music Delivery with Burst Packet Loss", 2001 IEEE International Conference on Multimedia and Expo, ICME 2001, August 22-25, 2001, pages 73-76 DATE CONSIDERED

EXAMINER: Initial citation if reference was considered. Draw line through citation if not in conformance to MPEP 609 and not considered.

IDS w/1449 form filed: September 18, 2002

Include copy of this form with next communication to applicant.

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No.	Serial No.
	[4]	004770.00012	09/770,113
	ATION DISCLOSURE ENT BY APPLICANT	Applicant:	
OIPE (Use sever		Ye Wang	
	COPY OF PAPERS	Filing Date:	Group:
MAY 1 3 2002 8	ORIGINALLY FILED	January 24, 2001	2133 265.5

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).

	WANG, Y., Vilermo, M., Isherwood, D. "The Impact of the Relationship Between MDCT and DFT on Audio Compression: A Step Towards Solvign the Mismatch", the First IEEE Pacific-Rim Conference on Multimedia (IEEE-PCM2000), December 13 – 15, 2000, Sydney, Australia, pp. 130 – 138
$\mathcal{L}^2$	PERKINS, C., Hodson, O., Hardman, V., "A Survey of Packet-loss Recovery Techniques for Streaming Audio," IEEE Network, Sept/Oct. 1998.
3 4 5 6	ETSI Rec. GSM 6.11, "Substitution and Muting of Lost Frames for Full Rate Speech Signals," 1992  GOODMAN, O.J. et al., "Waveform Substitution Techniques for Recovering Missing Speech Segments in Packet Voice Communications," IEEE Trans. Acoustics, Speech, and Sig. Processing, vol. ASSP-34, no. 6, Dec. 1986, pp. 1440-1448  WASEM, O.J. et al, "The Effects of Waveform Substitution on the Quality of PCM Packet Communications," IEEE Trans. Acoustics, Speech, and Sig. Processing, vol. 36 no. 3, March 1988, pp. 342 – 348  SANNECK, H. et al., "A New Technique for Audio Packet Loss Concealment," IEEE Global Internet 1996, Dec. 1996 pp. 48 – 52
	CHEN, Y.L., Chen, B.S., "Model-based Multirate Representation of Speech Signals and its Application to Recovery of Missing Speech Packets," IEEE Trans. Speech and Audio Processing, vol. 15, no. 3, May 1997, pp. 220 - 231

RECEIVED.

MAY 1 5 2002

Technology Center 2100

EXAMIN	akida Jackson	DATE CONSIDER	RED	153
				+

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication

se type a plus sign (+) inside this box 🛶	+

Sheet

Examiner Signature PTO/SB/08B (10-96)

**NFORMATION DISCLOSURE** STATEMENT BY APPLICANT

(use as many sheets as necessary)

of

Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Complete if Known 01/24/2001 Filing Date First Named Inventor Ye Wang 2133 Group Art Unit **Examiner Name** Attorney Docket Number 04770.00012

OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS								
Examiner Initials	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²					
	1	HERRE et al, Evaluation of Concealment Techniques for Compressed Digital Audio, Audio Engineering Society Preprint, March 16 - 19, 1993, Preprint 3460 (A1-4), Erlangen, Germany						
0	BOLOT et al, Analysis of Audio Packet Loss in the Internet, Proc. of 5th Int. Workshop on Network and Operating System Support for Digital, Audio and Video, pp. 163-174, Durham, April 1995							
77	ر 3	International Standard ISO/IEC, Information Technology - Coding of Moving Pictures and Associated Audio for Digital Storage Media at up to About 1,5 Mbit/s - Part 3, Audio, Technical Corrigendum 1, Published 1996-04-15, Ref. No. ISO/IEC 11172-3:1993/Cor.1:1996(E), Printed in Switzerland						
	4	STENGER et al, A New Error Concealment Technique for Audio Transmission with Packet Loss, Telecommunications Institute, University of Erlangen-Nuremberg, Cauerstrasse 7, 91058 Erlangen, Germany, Eusipco 1996						
A	5	GOTO et al, A Real-Time Music Scene Description System: Detecting Melody and Bass Lines in Audio Signals, Machine Understanding Division, Electrotechnical Laboratory 1-1-4 Umezono, Tsukuba, Ibaraki 305-8586 JAPAN, Working Notes of the IJCAI-99 Workshop on Computational Auditory Scene Analysis, pp. 31 - 40, August 1999						
	6	McKINLEY et al, Experimental Evaluation of Forward Error Correction on Multicast Audio Streams in Wireless LANs, Department of Computer Science and Engineering, Michigan State University, East Lansing, MIchigan 48824, pp 1 - 10, Copyright 2000 ACM						
	7	NISHIHARA et al, A Practical Query-By-Humming System for a Large music Database, NTT Laboratores, 1 - 1, Hikarinooka, Yokosuka-shi, Kanagawa, 239-0847, Japan, pp 1 - 38						
	/							

Date

Considered

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. 2 Applicant is to place a check mark here if English language Translation is attached.

Please type a plus sign (+) inside this be	эx -
--	------

stitute for form 1449A/PTO

PTO/SB/08A (10-96)
Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

aperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Attorney Docket Number

IFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known **Application Number** 09/770,113 01/24/2001 Filing Date First Named Inventor Ye Wang <del>2133</del> 2655 Group Art Unit **Examiner Name** 

04770.00012

(use as many sheets as necessary)

Sheet of

U.S. PATENT DOCUMENTS									
Examiner Cite	Number Kin	ument od Code² known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear				
	5,148,487		Nagai et al	09/15/1992					
1 1/2	5,579,430		Grill et al	11/26/1996					
77/3	5,579,430 5,852,805		Hiratsuka et al	12/22/1998					
	† <del></del>		-11/						
	<del>-</del>								
			-	<del></del>					
		1 1			<u> </u>				
		1							
		+ +	-						
		+ +			- AV-				
	<del> </del>	1							
	<del>                                     </del>	+		<del>                                     </del>					
<del>  </del>		+-+		<del> </del>					
		+							
	<del> </del>		-						
	<del>                                     </del>	+							
	1								

					FOR	EIGN PATENT DOCUMENT	rs		
Examiner Initials		Cite No.1	Foreign Patent Document  Kind Code <sup>5</sup> Office <sup>3</sup> Number <sup>4</sup> (if known)			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Т6
	$\Box$	1		EP 0 718 982 A	A2	Samsung	06/26/1996	-	
	X	2		WO 98/13965		Nokia	04/02/1998		
	17								
									$\perp$
$\vdash$			Ш						$\vdash$
<b> </b>			$\vdash$						+
$\vdash$					<del></del>	<u> </u>			+
$\vdash$		ļ <u>.</u>			<u> </u>		<del> </del>		+
							<b>1</b>		+

/			۲		$\triangle$		<i></i>					_
Examiner		7	1			$\sqrt{\Lambda}$	01 000	Date	10/	1.1	1172	1
Signature		$1/\sqrt{1}$	W ODE	$M k \cdot 1$		M	W/U $Y/V$	Considered	121	11/		
	tial if refe	rence	onsidered.	whether or n	ot cita	tion is in	conformance with MPE	P 609. Draw line	through citatio	n if ng( in	conformance and	d not

Burden Hour Statement; This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

considered. Include copy of this form with next communication to applicant. <sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter

code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.